

Amendments to the Specification:

Please replace the heading at page 1, line 7 of the application with the following rewritten heading:

CROSS REFERENCE TO RELATED APPLICATIONS PRIORITY CLAIM

Please insert the following heading between page 1, lines 15 and 16 of the application:

CROSS REFERENCE TO RELATED APPLICATIONS

Please replace the paragraph beginning at page 1, line 16 of the application with the following rewritten paragraph:

This application relates to and further expressly incorporates by reference and makes a part hereof the following U.S. patent application Ser. Nos. 08/672,367, now U.S. Patent No. 5,842,841, 10/040,887, 10/040,908 (published on Jul. 10, 2003 under Publication No. US-2003-0130624-A1), and Ser. No. 10/059,929 (published on Jul. 31, 2003 under Publication No. US-2003-0141981-A1), and the following This application also relates to and expressly incorporates by reference and makes a part hereof U.S. Provisional Patent Application Ser. Nos. 60/377,027, 60/376,625, 60/376,655, 60/444,350, and 60/560,520, and U.S. Pat. No. 5,842,841.

Please replace the paragraph beginning at page 1, line 16 of the application with the following rewritten paragraph:

Accordingly, as explained in further detail below, one use of a MEMS component is as an in-line MEMS pump 5314, shown schematically in FIG. 53. The MEMS pump 5314 is capable of pumping fluid contained in the IV bag 5320 through the tube 5312, out through the access device 5324, and into patient. The MEMS component has a MEMS local electronics element attached thereto, and the MEMS electronics element connects with an external, durable MEMS controller, which can communicate with the present system 210 as does the present infusion pump 120 described herein. In one embodiment of a MEMS pump 5314, the MEMS electronics element 5332 is embedded therein and can preferably store MEMS parametric operational information. The MEMS controller, with its electronics and power source, may be physically or wirelessly connected to the MEMS electronics element. In one embodiment, the parametric operational information may be loaded from the detachable MEMS controller 5338. Preferably, the pump element 5314 generates the fluid flow through a tube which is part of line set 5312 based on information stored locally within the

MEMS electronics 5332. This information is preferably downloaded from a wired but detachable MEMS controller 5338. Further, the MEMS components may communicate with the system 210 via wireless communication. Additionally, the MEMS controller may provide a transfer of information to and from the system 210 to fully automate the control and interrogation of the MEMS components in the present system 210 through a wireless or wired communication path.